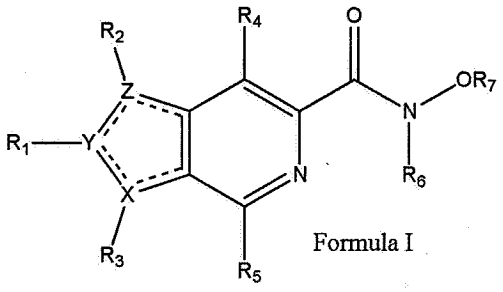
Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (canceled)

2. (currently amended) A compound represented by Formula I:



Formula I

wherein:

R_1 is hydrogen or $-C(O)OR_c$, where R_c is an unsubstituted alkyl, unsubstituted alkenyl, or unsubstituted alkynyl group;

R_2 is hydrogen or an alkyl, alkenyl, or heteroalkyl group, unsubstituted or substituted with one or more substituents independently selected from the group consisting of :

-O-; $-NR_dR_d$; $-OR_d$; halogens; and an aryl group, unsubstituted or substituted with one or more substituents independently selected from the group consisting of:

halogens; $-C(R_d)_3$; unsubstituted alkyl, alkyl-R_d, alkenyl-R_d , and aryl groups,

where R_d is one or more substituents independently selected from the group consisting of hydrogen; unsubstituted alkyl, unsubstituted alkenyl, and unsubstituted aryl groups;

R_3 is hydrogen or an alkyl, alkenyl, or heteroalkyl group, unsubstituted or substituted with one or more substituents independently selected from the group consisting of :

-O-; $-OR_e$; and, alkyl, aryl, cycloalkyl, and heteroaryl groups, unsubstituted or substituted with one or more substituents independently selected from the group consisting of:

halogens; -OH; and aryl or heteroaryl groups, substituted with one or more R_e substituents,

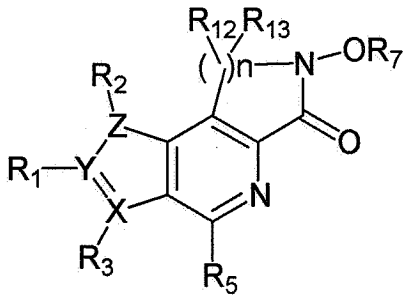
where R_e is one or more substituents independently selected from the group consisting of halogens; hydrogen; OH; unsubstituted alkyl; and aryl unsubstituted or substituted with one or more substituents independently selected from the group consisting of halogen and alkyl;

R_4 is hydrogen or an alkyl group, unsubstituted or substituted with $-OR_f$, where R_f is an unsubstituted alkyl group;

R_5 is hydrogen or an alkyl group;

R_6 is hydrogen or an alkyl group unsubstituted or substituted with an aryl group;

R_4 and R_6 together with the N to which R_6 is attached cyclize to form the following compound represented by the Formula Id:



Formula Id

wherein R_{12} and R_{13} are each independently hydrogen; and

n is 1;

R_7 is hydrogen or an alkyl, alkenyl, or aryl group, unsubstituted or substituted with an aryl group, unsubstituted or substituted with one or more halogens;

X is C or N;

Y is C;

Z is C or N; and

there is a double bond between X and the 6-membered ring and Z and the 6-membered ring; or between X and Y; or between Y and Z;

or a pharmaceutically acceptable salt~~, pharmaceutically acceptable prodrug, or a pharmaceutically active metabolite~~ thereof.

3. (currently amended) A compound according to claim 2, wherein:

R_1 is hydrogen or -C(O)O-ethyl;

R_2 is hydrogen, methyl, ethyl, propyl, vinyl, allyl, or benzyl, unsubstituted or substituted with one or more substituents independently selected from the group consisting of:

halogens, -O-, OH, amino, and phenyl, unsubstituted or substituted with one or more substituents selected from the group consisting of :

methyl, ethyl, phenyl, benzyl, 2-phenylethyl, 3-phenylallyl, and 2-phenylvinyl;

R_3 is methyl, ethyl, butyl, or benzyl, unsubstituted or substituted with one or more substituents independently selected from the group consisting of:

halogens, OH, methyl, cyclohexyl, -O-, thiadiazole, thiophenyl, and phenoxy, unsubstituted or substituted with one or more substituents independently selected from the group consisting of:

halogens, phenyl, and ethoxy;

R_4 is hydrogen, methyl or methoxymethyl;

R_5 is hydrogen or methyl;

R_6 is hydrogen, methyl, or benzyl;

R_7 is hydrogen, methyl, benzyl, phenyl, allyl, or *tert*-butyl, unsubstituted or substituted with one or more halogens; and

R_4 and R_6 together with the N to which R_6 attaches cyclize to form a pyrrole-2-one[.]; or a pharmaceutically acceptable salt thereof.

4. (currently amended) A compound according to claim 3, wherein:

R_1 is hydrogen or -C(O)O-ethyl;

R_2 is selected from

hydrogen;
hydroxymethyl;
methoxymethyl;
ethoxymethyl;
2-phenylvinyl;
3-phenylprop-1-enyl;
[(2-phenylvinyl)oxy]methyl;
dimethylaminomethyl;
benzyloxymethyl;
4-fluorobenzyl;
2-phenylvinyl;
2-phenylethyl;
3-phenylpropyl;
2-phenylethoxymethyl;
[(phenylprop-2-enyl)oxy]methyl;
[(3-phenylallyl)oxy]methyl;
methyl;
ethyl; and
allyl;

R_3 is selected from

hydrogen;

2,4-difluorobenzyl;

2,3-difluorobenzyl;

4-fluorobenzyl;

3-chloro-2,6-difluorobenzyl;

3-chloro-5-fluoro-2-hydroxybenzyl;

5-chloro-thiophen-2-ylmethyl;

3-chloro-2-fluorobenzyl;

2,3-dichlorobenzyl;

5-ethoxy-[1,2,3]thiadiazol-4-ylmethyl;

3-methyl-butyl;

2-cyclohexyl-ethyl;

2,4-difluoro-phenoxymethyl;

3,5-difluoro-2-hydroxybenzyl;

2-chloro-4-fluoro-phenoxymethyl;

3-chloro-5-fluoro-2-hydroxybenzyl;

4-fluoro-phenoxymethyl;

5-fluoro-2-hydroxy-benzyl;

2,3,4-trifluoro-phenoxymethyl;

3,4,5-trifluoro-2-hydroxybenzyl;

2-chloro-phenoxymethyl; and

5-chloro-2-hydroxy-benzyl;

R_4 is hydrogen, methyl or methoxymethyl;

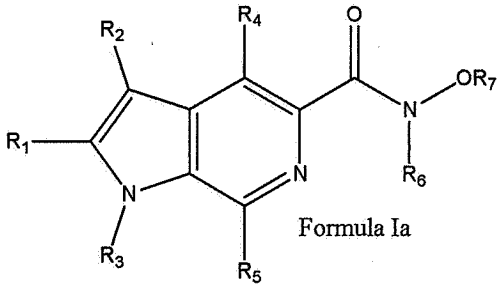
R_5 is hydrogen or methyl;

R_6 is hydrogen, methyl, or benzyl;

R_7 is hydrogen, methyl, benzyl, phenyl, pentafluorobenzyl, allyl, or *tert*-butyl;

R_4 and R_6 together with the N to which R_6 attaches cyclize to form a pyrrol-2-one[.]; or a pharmaceutically acceptable salt thereof.

5. (currently amended) A compound according to claim 2, represented by Formula Ia:



Formula Ia

wherein:

X is N;

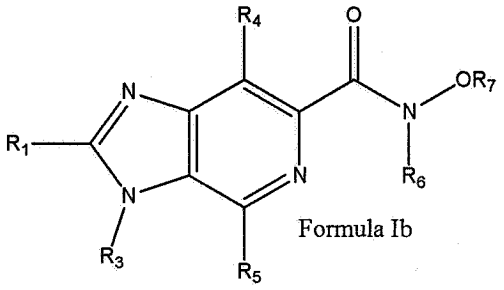
Y is C;

Z is C; and

the double bond is between Y and Z;

or a pharmaceutically acceptable salt~~, pharmaceutically acceptable prodrug, or a pharmaceutically active metabolite~~ thereof.

6. (previously presented) A compound according to claim 2, represented by Formula Ib:



Formula Ib

wherein:

X is N;

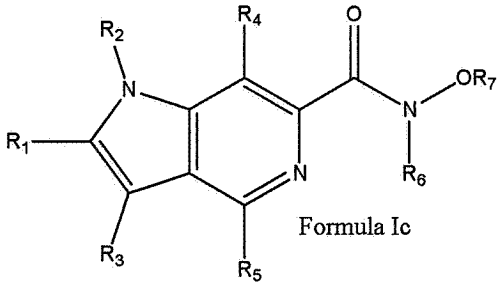
Y is C;

Z is N; and

the double bond is between Y and Z;

or a pharmaceutically acceptable salt thereof.

7. (currently amended) A compound according to claim 2, represented by Formula Ic:



Formula Ic

wherein:

X is C;

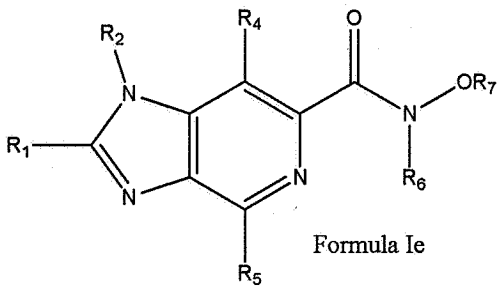
Y is C;

Z is N; and

the double bond is between X and Y;

or a pharmaceutically acceptable salt~~, pharmaceutically acceptable prodrug, or a pharmaceutically active metabolite~~ thereof.

8. (currently amended) A compound according to claim 2, represented by Formula Ie:



Formula Ie

wherein:

X is N;

Y is C;

Z is N; and

the double bond is between X and Y;

or a pharmaceutically acceptable salt~~, pharmaceutically acceptable prodrug, or a pharmaceutically active metabolite~~ thereof.

9. (canceled)

10. (currently amended) A compound selected from the group consisting of:

1-(2,4-Difluorobenzyl)-*N*-hydroxy-1*H*-pyrrolo[2,3-c]pyridine-5-carboxamide;

1-(2,4-Difluorobenzyl)-*N*-hydroxy-*N*-methyl-1*H*-pyrrolo[2,3-*c*]pyridine-5-carboxamide;

1-(4-Fluorobenzyl)-*N*-hydroxy-1*H*-pyrrolo[2,3-*c*]pyridine-5-carboxamide;

1-(4-Fluorobenzyl)-*N*-hydroxy-*N*-methyl-1*H*-pyrrolo[2,3-*c*]pyridine-5-carboxamide;

N-Benzyl-1-(4-fluorobenzyl)-*N*-hydroxy-1*H*-pyrrolo[2,3-*c*]pyridine -5-carboxamide;

1-(3-Chloro-2,6-difluorobenzyl)-*N*-hydroxy-1*H*-pyrrolo[2,3-c]pyridine-5-carboxamide;

1-(5-Chloro-thiophen-2-ylmethyl)-*N*-hydroxy-1*H*-pyrrolo[2,3-*c*]pyridine-5-carboxamide;

1-(3-Chloro-2-fluorobenzyl)-*N*-hydroxy-1*H*-pyrrolo[2,3-*c*]pyridine-5-carboxamide;

1-(2,3-Dichlorobenzyl)-*N*-hydroxy-1*H*-pyrrolo[2,3-c]pyridine-5-carboxamide;

1-(5-Ethoxy-[1,2,3]thiadiazol-4-ylmethyl)-*N*-hydroxy-1*H*-pyrrolo[2,3-*c*]pyridine-5-carboxamide;

1-(2,4-Difluorobenzyl)-*N*-hydroxy-4-methyl-1*H*-pyrrolo[2,3-*c*]pyridine-5-carboxamide;

1-(2,4-Difluorobenzyl)-3-ethoxymethyl-*N*-hydroxy-1*H*-pyrrolo[2,3-*c*]pyridine-5-carboxamide;

1-(2,4-Difluorobenzyl)-*N*-hydroxy-3-hydroxymethyl-1*H*-pyrrolo[2,3-*c*]pyridine-5-carboxamide;

1-(2,4-Difluorobenzyl)-3-dimethylaminomethyl-*N*-hydroxy-1*H*-pyrrolo[2,3-*c*]pyridine-5-carboxamide;

3-Benzyloxymethyl-1-(2,4-difluorobenzyl)-*N*-hydroxy-1*H*-pyrrolo[2,3-*c*]pyridine-5-carboxamide;

3-(2,4-Difluorobenzyl)-*N*-hydroxy-3*H*-imidazo[4,5-*c*]pyridine-6-carboxamide;

1-(2,4-Difluorobenzyl)-*N*-hydroxy-1*H*-imidazo[4,5-*c*]pyridine-6-carboxamide;

1-(2,4-Difluorobenzyl)-3-ethoxymethyl-*N*-hydroxy-*N*-methyl-1*H*-pyrrolo[2,3-*c*]pyridine-5-carboxamide;

1-(2,4-Difluorobenzyl)-*N*-hydroxy-3-hydroxymethyl-*N*-methyl-1*H*-pyrrolo[2,3-c]pyridine-5-carboxamide;

1-(2,4-Difluorobenzyl)-3-dimethylaminomethyl-*N*-hydroxy-*N*-methyl-1*H*-pyrrolo[2,3-*c*]pyridine-5-carboxamide;

1-(2,4-Difluorobenzyl)-*N*-methoxy-1*H*-pyrrolo[2,3-*c*]pyridine-5-carboxamide;

1-(2,4-Difluorobenzyl)-3-ethoxymethyl-*N*-methoxy-1*H*-pyrrolo[2,3-*c*]pyridine-5-carboxamide;

1-(2,4-Difluorobenzyl)-3-hydroxymethyl-*N*-methoxy-1*H*-pyrrolo[2,3-*c*]pyridine-5-carboxamide;

1-(2,4-Difluorobenzyl)-3-dimethylaminomethyl-*N*-methoxy-1*H*-pyrrolo[2,3-*c*]pyridine-5-carboxamide;

N-Benzyloxy-1-(2,4-difluorobenzyl)-1*H*-pyrrolo[2,3-*c*]pyridine-5-carboxamide;

N-Benzyloxy-3-(4-fluorobenzyl)-*3H*-imidazo[4,5-*c*]pyridine-6-carboxamide;

3-(4-Fluorobenzyl)-*N*-methoxy-*3H*-imidazo[4,5-*c*]pyridine-6-carboxamide;

3-(4-Fluorobenzyl)-*N*-phenoxy-*3H*-imidazo[4,5-c]pyridine-6-carboxamide;

3-(4-Fluorobenzyl)-*N*-[(pentafluorobenzyl)oxy]-*3H*-imidazo[4,5-*c*]pyridine-6-carboxamide;

N-(Allyloxy)-3-(4-fluorobenzyl)-*3H*-imidazo[4,5-*c*]pyridine-6-carboxamide;

6-(2,4-Difluorobenzyl)-2-hydroxy-1,6-dihydrodipyrrolo[3,2-*d*:3',4'-*b*]pyridin-3(2*H*)-one;

3-(2,3-Difluorobenzyl)-*N*-phenoxy-3*H*-imidazo[4,5-*c*]pyridine-6-carboxamide;

3-(2,3-Difluorobenzyl)-*N*-methoxy-3*H*-imidazo[4,5-c]pyridine-6-carboxamide;

N-Allyloxy-3-(2,3-difluorobenzyl)-3*H*-imidazo[4,5-*c*]pyridine-6-carboxamide;

1-(4-Fluorobenzyl)-*N*-phenoxy-1*H*-imidazo[4,5-*c*]pyridine-6-carboxamide;

N-*tert*-Butoxy-3-(2,3-difluorobenzyl)-3*H*-imidazo[4,5-*c*]pyridine-6-carboxamide;

N-Methoxy-3-(3-methyl-butyl)-3*H*-imidazo[4,5-*c*]pyridine-6-carboxamide;

3-(3-Methyl-butyl)-*N*-phenoxy-3*H*-imidazo[4,5-*c*]pyridine-6-carboxamide;

3-(2-Cyclohexyl-ethyl)-*N*-phenoxy-3*H*-imidazo[4,5-*c*]pyridine-6-carboxamide;

3-(2-Cyclohexyl-ethyl)-*N*-methoxy-3*H*-imidazo[4,5-*c*]pyridine-6-carboxamide;

N-Allyloxy-3-(2-cyclohexyl-ethyl)-3*H*-imidazo[4,5-*c*]pyridine-6-carboxamide;

1-(2,4-Difluorobenzyl)-*N*-hydroxy-4-methoxymethyl-1*H*-pyrrolo[2,3-*c*]pyridine-5-carboxamide;

1-(2,4-Difluorobenzyl)-*N*-hydroxy-3-(2-phenylvinyl)-1*H*-pyrrolo[2,3-*c*]pyridine-5-carboxamide;

1-(2,4-Difluorobenzyl)-*N*-hydroxy-3-(3-phenylprop-1-enyl)-1*H*-pyrrolo[2,3-*c*]pyridine-5-carboxamide;
1-(2,4-Difluorobenzyl)-*N*-hydroxy-3-(2-phenylethyl)-1*H*-pyrrolo[2,3-*c*]pyridine-5-carboxamide;
1-(2,4-Difluorobenzyl)-*N*-hydroxy-3-(3-phenylpropyl)-1*H*-pyrrolo[2,3-*c*]pyridine-5-carboxamide;
1-(2,4-Difluorobenzyl)-*N*-hydroxy-3-{[(2-phenylethyl)oxy]methyl}-1*H*-pyrrolo[2,3-*c*]pyridine-5-carboxamide;
1-(2,4-Difluorobenzyl)-*N*-hydroxy-3-{[(3-phenylallyl)oxy]methyl}-1H-pyrrolo[2,3-c]pyridine-5-carboxamide;
1-(2,4-Difluorobenzyl)-*N*-hydroxy-3-methyl-1*H*-pyrrolo[2,3-c]pyridine-5-carboxamide;
1-(2,4-Difluorobenzyl)-3-ethyl-*N*-hydroxy-1*H*-pyrrolo[2,3-*c*]pyridine-5-carboxamide;
3-Allyl-1-(2,4-difluorobenzyl)-*N*-hydroxy-1*H*-pyrrolo[2,3-*c*]pyridine-5-carboxamide;
1-(2,4-Difluorobenzyl)-*N*-hydroxy-7-methyl-1*H*-pyrrolo[2,3-*c*]pyridine-5-carboxamide;
Ethyl 1-(2,4-Difluorobenzyl)-5-hydroxycarbamoyl-1*H*-pyrrolo[2,3-*c*]pyridine-2-carboxylate;
3-(2,4-Difluoro-phenoxymethyl)-1-ethyl-*N*-hydroxy-1*H*-pyrrolo[3,2-*c*]pyridine-6-carboxamide;
3-(3,5-Difluoro-2-hydroxybenzyl)-1-ethyl-*N*-hydroxy-1*H*-pyrrolo[3,2-*c*]pyridine-6-carboxamide;
3-(2-Chloro-4-fluoro-phenoxymethyl)-1-ethyl-*N*-hydroxy-1*H*-pyrrolo[3,2-*c*]pyridine-6-carboxamide;
3-(3-Chloro-5-fluoro-2-hydroxybenzyl)-1-ethyl-*N*-hydroxy-1*H*-pyrrolo[3,2-*c*]pyridine-6-carboxamide;
1-Ethyl-3-(4-fluoro-phenoxymethyl)-*N*-hydroxy-1*H*-pyrrolo[3,2-*c*]pyridine-6-carboxamide;
1-Ethyl-3-(5-fluoro-2-hydroxybenzyl)-*N*-hydroxy-*1H*-pyrrolo[3,2-*c*]pyridine-6-carboxamide;
1-Ethyl-*N*-hydroxy-3-(2,3,4-trifluoro-2-phenoxymethyl)-1*H*-pyrrolo[3,2-*c*]pyridine-6-carboxamide;
1-Ethyl-*N*-hydroxy-3-(3,4,5-trifluoro-2-hydroxybenzyl)-1*H*-pyrrolo[3,2-*c*]pyridine-6-carboxamide;
3-(2-Chloro-phenoxymethyl)-1-ethyl-*N*-hydroxy-1*H*-pyrrolo[3,2-*c*]pyridine-6-carboxamide; and
3-(5-Chloro-2-hydroxy-benzyl)-1-ethyl-*N*-hydroxy-*1H*-pyrrolo[3,2-*c*]pyridine-6-carboxamide; or
~~and~~ a pharmaceutically acceptable ~~salts~~ salt thereof.

11. (currently amended) A composition comprising:
a therapeutically effective amount of a compound or pharmaceutically acceptable salt according to claim 2; and
a pharmaceutically acceptable carrier, diluent, or vehicle ~~therefore~~ therefor.

12. (currently amended) A method of inhibiting or modulating an enzyme activity of HIV Integrase, comprising contacting said enzyme with an effective amount of a compound[,] or a pharmaceutically acceptable salt thereof~~, pharmaceutically acceptable prodrug, or pharmaceutically active metabolite~~ as defined in claim 2.

13. (currently amended) A method of treating a disease or condition mediated by HIV, comprising administering to a mammal in need of such treatment a therapeutically effective amount of at least one compound~~, pharmaceutically acceptable salt, pharmaceutically acceptable prodrug, or pharmaceutically active metabolite~~ as defined in claim 2[.], or a pharmaceutically acceptable salt thereof.

14. (original) A method of evaluating the HIV integrase modulatory activity of a test compound, comprising:

a) immobilizing viral DNA on a surface, wherein the viral DNA has been modified to contain a CA base pair overhang at the 5' end;

b) adding integrase to the immobilized DNA;

c) adding a test compound to the immobilized viral DNA/integrase mixture;

d) obtaining target ds-DNA radiolabeled at both 3' ends;

e) combining the immobilized viral DNA/integrase/compound mixture with the radiolabeled target DNA to initiate a reaction;

f) stopping the reaction by adding a stop buffer to the combination of (e); and

g) reading the reaction results in a scintillation counter to determine whether the test compound modulates the activity of the integrase.

15. (original) The method of claim 14, wherein the surface is at least one scintillation proximity assay bead.